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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,461

09/15/2003

Mike Fullman

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06/30/2006

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EXAMINER

OSORIO, RICARDO

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,461

Applicant(s)

FULLMAN ET AL

Examiner

RICARDO L. OSORIO

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2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 24-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 14-23, and 29-35 is/are rejected.
- 7) ☒ Claim(s) 9-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-23 and 29-35, drawn to a display controller, classified in class 345, subclass 204.
 - II. Claims 24-28, drawn to a timing controller, classified in class 345, subclass 99.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility such as a display controller, which does not require a timing controller, as recited in subcombination II. See MPEP § 806.05(d).
3. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Graciela Cowger on June 15, 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-23 and 29-35. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-8, 14-23, and 29-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoyama (5,506,602).

Regarding claims 1, 15, 16, 19, 29, and 31 Yokoyama discloses a display controller for controlling and driving a flat panel (Figs. 1A-1C), comprising: a display port capable of generating image data for display on the panel responsive to a display clock (Fig. 1C, reference character 1-2, and col. 3, lines 1-10 and 30-37) ; and a timing controller capable of generating vertical start and clock pulses for driving rows and columns of the flat panel responsive to predetermined characteristics of the image data (Fig. 1C, reference character 8, col. 3, lines 16-28, and col. 7, lines 17-28).

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Regarding claim 2, Yokoyama teaches that the timing controller is capable of providing interlaced image data to the panel responsive to the start and clock pulses (col. 3, lines 25-28).

Regarding claim 3, Yokoyama teaches that the timing controller is capable of receiving synchronization signals from the display port (Fig. 1C, reference characters 16 and 17).

Regarding claim 7, Yokoyama teaches that the predetermined characteristic includes a vertical image frequency (col. 4, lines 50-60).

Regarding claims 17 and 30, Yokoyama teaches of generating vertical and horizontal synchronization signals associated with the display data (col. 3, lines 25 and 26).

Regarding claim 18, Yokoyama teaches of generating display data capable of generating deinterlaced display data (claim 1, line 17).

Regarding claim 14, Yokoyama teaches of the display port and the timing controller being integrated in a single semiconductor device (see Fig. 1C).

Regarding claims 4-6, 8, 20-23, and 32-35, Yokoyama teaches of the clock pulse being pulsed at least twice for every vertical synchronization signal responsive to a predetermined vertical frequency, the vertical start pulse being capable of sequentially activating every other panel row on alternating fields responsive to the clock pulse, and the clock pulse increments a line counter such that the timing controller skips every other image line (col. 5, lines 36-42. It is inherent that in the interlace display method, to sequentially activate every other panel row, and to skip every other image line, for example, in the first field, scanning the odd lines, and in the second field, scanning the even lines).

Allowable Subject Matter

8. Claims 9-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claims 9-13 are allowable since certain key features of the claimed invention are not taught or fairly suggested by the prior art. In claim 9, "timing controller comprises: an output circuit capable of generating a function responsive to a top, bottom, left, and right position and a display clock; a pulse width modulation circuit capable of generating a modulated pulse responsive to the display clock; and a multiplexer circuit capable of selecting one of a plurality of inputs including the function responsive to the display clock". The closest prior art Yokoyama (5,506,602) discloses a display controller that configures itself corresponding to the identified display, however singularly or in combination fails to anticipate or render the above underlined limitations obvious.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo L. Osorio whose telephone number is 571-272-7676. The examiner can normally be reached on Monday through Thursday from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: 571-273-8300 (for Technology Center 2600 only)


Hand-delivered responses should be brought to the Customer Service Window at the

Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RICARDO OSORIO
PRIMARY EXAMINER

Technology Division: 2629

RLO

June 23, 2006